

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/507, 355
Source: PCT
Date Processed by STIC: 8/12/2005

ENTERED



PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/507,355

DATE: 08/12/2005

TIME: 14:45:30

Input Set : A:\2005-06-06 0147-0262PUS1.ST25.txt
 Output Set: N:\CRF4\08122005\J507355.raw

```

3 <110> APPLICANT: DLF-Trifolium A/S
4     Risoe National Laboratory
5     Nielsen, Klaus K
6     Jensen, Christian S
7     Gao, Caixa
8     Salchert, Klaus
10 <120> TITLE OF INVENTION: Method of Repressing Flowering in a Plant
12 <130> FILE REFERENCE: P12791PC
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/507,355
C--> 15 <141> CURRENT FILING DATE: 2004-09-10
17 <150> PRIOR APPLICATION NUMBER: US 60/363,125
18 <151> PRIOR FILING DATE: 2002-03-11
20 <160> NUMBER OF SEQ ID NOS: 29
22 <170> SOFTWARE: PatentIn version 3.1
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 929
26 <212> TYPE: DNA
27 <213> ORGANISM: Lolium perenne
29 <400> SEQUENCE: 1
30 gccaagcca cttcaaagct ttgctactac cagatagagc attcaccgtg caatatagaa      60
32 atacttgccct ctccaaaccat gtcttaggtct gtggagcctc ttattgttgg tcgtgtcatt    120
34 ggagaagttc tcgatccatt taacccatgt gtgaagatgg tagcaaccta taactcaaac    180
36 aagctggtct tcaatggtca tgagctctac ccatcagcag ttgtatctaa accaagagta    240
38 gaggttcagg ggggtgactt gcgatcctta ttcacattgg ttatgacgga cccagatgtg    300
40 ccaggaccaa gtgatccgta tctgcgggag catcttcact ggattgtcag taatataacct   360
42 gggacaacag atgcttcatt tgggggggag gtcatgagct atgagagccc aaagccccaac  420
44 attggaatcc acaggttcat ttttgtcct ttcaagcaga agcgaaggca gactgtatct   480
46 gtgccttcct tcagggatca ttcaacacc cgccagtttgc tgatcttggc            540
48 ctcccctgtgg ctgctgttta ctcaattgt cagagagaga ctgctgccag gaggcgctga  600
50 aaatcgagtt cttggatc ccaagttgtgc caaataaaagg cttttggagt tatgcacctt   660
52 ctttctgaag tcaatgtcc tcttctacat tacttcctcg tggaccattt cttcttact   720
54 acagtttttgc ctcagggatc aaataaaatca agtgoatttt ggagattgtt ttagattata 780
56 ttgtaaagcag tgagatcagc aaccatgtgt taacataagc cagtagatattt gcaggtccat 840
58 gtttatggtt tcatgttgc tggatggat tatcactaga aggaaggatca ggttagacaac  900
60 ccaaactggc aaaaaaaaaaag ctttatctta                                         929
63 <210> SEQ ID NO: 2
64 <211> LENGTH: 5224
65 <212> TYPE: DNA
66 <213> ORGANISM: Lolium perenne
68 <400> SEQUENCE: 2
69 cactagtaac ggccggccagt gtgctggaaat tcagggtaat acgactcact atagggmgct   60
71 cgaggatctt cccaccagggtg tgcattcatg tgtaacttac cactctccaa cttgagggtac 120
73 tcaagattgg tggcggttc ctttcgtcg aagcgatcca aagggtgtcgg gtaacggtaa  180

```

RAW SEQUENCE LISTING DATE: 08/12/2005
PATENT APPLICATION: US/10/507,355 TIME: 14:45:30

Input Set : A:\2005-06-06_0147-0262PUS1.ST25.txt
Output Set: N:\CRF4\08122005\J507355.raw

75	tgcacggaaa	cagaaaaacat	cgcccatctgc	acggaagcca	gaaggtagtta	ctatgtcaaa	240	
77	gggatataaa	aaactcacta	atgaaggggg	atgctattgc	ttagataaac	tgctatctca	300	
79	tctacaggtg	agattgcaag	tatacttgac	aacagggcc	gatggatgg	catgaagaaa	360	
81	attagggctg	gagtagaaaag	gtaagatatg	catggattt	gatgagatgg	ctagagggtt	420	
83	gcgagatatc	aaatagaaga	cacttctca	atgattcaat	agaagatgca	tgtgccatta	480	
85	cagagtggat	tattatgtcc	ttttaaaga	gatgcttacg	tcctgcac	ttccatataac	540	
87	acaattacac	tccttgcata	gactttcct	gctataattt	tcttcctcg	ccaaaagaat	600	
89	aatactatag	aacttcctaa	tttaatttcc	ccttattt	ttggactcta	tcttaattct	660	
91	cctccttattg	ttcagccaag	gactgctcct	tccatttact	tgcccccacgg	gctgactgac	720	
93	aatgacacct	gcgcgctt	tgatcaagag	cctgaatcta	tttctcac	catgctgca	780	
95	tgctccttct	cacagcaa	atggtatgat	atctgcagta	agctcaac	tctgccatgt	840	
97	atgccagttg	gcaacgcccga	gttcagcatt	tggttcgccc	cagctgccc	caacgctcaa	900	
99	ccagccctgc	agaagggtgc	taaatccatc	atcatccta	ctctctggag	attatggaag	960	
101	acgaggaacg	atgctatctt	aaaaatctg	gcccccaaca	gactgcctt	agttcagtcg	1020	
103	atccttagatg	aagcctgtca	atggcgtt	gcccgtgcta	aggcgctacg	tca	1080	
105	ttacatgcta	gacc	ttgtc	ttgtc	ttgtc	actaagttag	1140	
107	ccctgtacag	ttttttt	ttttt	ttt	ttt	ttttcgtt	1200	
109	tttggtagct	ttgtactct	ttgtactct	ttgtactct	ttgtactct	ttgtactct	1260	
111	atgacgcatg	cttggcatg	ttgtcgagaa	aaaaatttac	ttac	ttac	1320	
113	tcttcaccaa	cttggactcc	acaaagcttc	aatcgcaact	tgtccaa	gctgcgcgt	1380	
115	gtgctgctgt	cctttccaa	tgcatccata	cactgtccta	gtcagcata	caaaca	1440	
117	agcta	atgccc	tttcaat	attatctgat	tgtgat	ctaatctt	1500	
119	gcat	atgatg	ctcggcata	tgaatgaa	ttgttggca	gaatgaa	agaggact	1560
121	tctt	gatg	ttatgact	taa	ttt	ttt	ttt	1620
123	ttaaaaaaaa	ggctatgaaa	aacttgc	ttgtt	ttgtt	ttgtt	ttgtt	1680
125	caaattggta	tgcatggaaa	ttgtgt	ttgtgt	ttgtgt	ttgtgt	ttgtgt	1740
127	cacactgt	ca	ctggc	ata	ttt	ttt	ttt	1800
129	attcatggac	ccat	tttt	ttt	ttt	ttt	ttt	1860
131	taagtggat	tattggaa	aaaaaa	at	ttt	ttt	ttt	1920
133	gatcg	gat	catgg	gaca	cact	ttt	ttt	1980
135	acagct	taggt	gtca	agca	tata	ttt	ttt	2040
137	gtactt	ca	ccact	actt	ttt	ttt	ttt	2100
139	agaacat	atg	cata	aa	ttt	ttt	ttt	2160
141	attattt	ttt	ttt	ttt	ttt	ttt	ttt	2220
143	agcact	ag	acc	ct	ttt	ttt	ttt	2280
145	ctcttccat	gtgt	gtt	ccc	ttt	ttt	ttt	2340
147	atgcactt	gg	gtat	gta	ttt	ttt	ttt	2400
149	acaactt	ccc	ttt	cc	ttt	ttt	ttt	2460
151	aacactataa	agac	gaacat	ttt	gggg	ttt	ttt	2520
153	ttctgtccac	tagata	aaac	ctaa	aaa	aaa	aaa	2580
155	aagcc	agacc	ttaa	attt	ttt	ttt	ttt	2640
157	agtttaggaa	agcat	cact	caa	at	ttt	ttt	2700
159	ggcata	ctt	aaat	ttt	ttt	ttt	ttt	2760
161	tttagcat	ga	aaac	gcatt	ttt	ttt	ttt	2820
163	ttcc	ct	ct	gg	ttt	ttt	ttt	2880
165	gcat	aaaa	at	tc	ttt	ttt	ttt	2940
167	ttgt	cct	taa	ac	ttt	ttt	ttt	3000
169	agg	gtgt	ttt	ttt	ttt	ttt	ttt	3060
171	qqqactataa	qqt	gggaa	ac	ttt	ttt	ttt	3120

RAW SEQUENCE LISTING DATE: 08/12/2005
PATENT APPLICATION: US/10/507,355 TIME: 14:45:30

Input Set : A:\2005-06-06 0147-0262PUS1.ST25.txt
Output Set: N:\CRF4\08122005\J507355.raw

173	acagtatttt	ttaactatca	ataactaaaa	ttaaaaacaga	atagagatat	actaacaatg	3180										
175	aaaatcaaac	agttgtcaa	attgtattt	tcgttagtt	tatctcatgt	ttctgggtgaa	3240										
177	aaaattctct	gcccctagaa	cttggaaagaa	gatgcataa	gtattactcc	aaactccaac	3300										
179	actgtgcaac	tgatagaaaa	gaaacaagac	ccttgggtgg	ctgtctcgga	aaaagtgggt	3360										
181	aggtccttc	tgtggcctt	tcagttctt	ccacgcatac	ccaacccaaa	aagaacacag	3420										
183	atactactca	tgtctcacat	tctctttga	gcttacactc	gaagcaggct	tcttcctct	3480										
185	ataagttagag	gctcgtcgta	ctctagcaat	gctcagtaag	cagcccaagc	cacttcaaag	3540										
187	ctttgctact	accagataga	gcattcaccg	tgcaatata	aaataacttgc	cttcacacc	3600										
189	atgtcttaggt	ctgtggagcc	tcttattgtt	ggtcgtgtca	ttggagaagt	tctcgatcca	3660										
191	tttaacccat	gtgtgaagat	ggtagcaacc	tataactcaa	acaagctgg	cttcaatgg	3720										
193	catgagctct	acccatcagc	agttgtatct	aaaccaagag	tagaggtca	gggggggtgac	3780										
195	ttgcgatcct	tattcacatt	ggtagaatgc	actcgactcg	atcttggAAC	tccatattca	3840										
197	acttcgagta	ttgtatgctt	gttttcttct	ttcgcagttgg	ccataattat	tcatatttca	3900										
199	ggttatgacg	gaccagatg	tgccaggacc	aagtgtatcg	tatctgcggg	agcatcttca	3960										
201	ctggtaacct	ttctcatgca	cagtttttc	tgctgggtgg	ctactaagca	cctaaatata	4020										
203	tttagtatatt	tttttggaaag	gaaaatata	tagtatatgt	tgctaaggaa	tatagaagta	4080										
205	catcttcctc	ttgcacat	atagacagag	agactat	aatagcaact	ctaacgagag	4140										
207	tcatttacca	atacccttta	cacttacaca	ggattgtcag	taatataac	gggacaacag	4200										
209	atgcttcatt	ttgttaggtcc	ttctctgaga	tttgaattgg	tatattctat	gttctgcatt	4260										
211	ttgaatgaat	aaccactgac	cttttgaatt	gcaggggggg	aggtcatgag	ctatgagagc	4320										
213	ccaaagccca	acatttggaa	ccacagggtc	attttgtc	tcttcaagca	gaagcgaagg	4380										
215	cagactgtat	ctgtgccttc	cttcagggtat	cattcaaca	cccgccagtt	tgctgtggat	4440										
217	aatgatctt	gcctccctgt	ggctgtgtt	tacttcaatt	gtcagagaga	gactgtgcc	4500										
219	aggaggcgct	gaaaatcgag	ttcttggcata	tcccagggt	gccaaataaa	ggcttttgg	4560										
221	gttatgcacc	ttcttctga	agtcaatgt	ccttcttctac	attacttct	cgtggaccat	4620										
223	tgcttcttta	ctacagttt	tgctcaggga	tcaaaataat	caagtgcatt	ttggagattg	4680										
225	tatttagatta	tattttaagc	agttagatca	gcaaccatgt	gttacataa	gccagtagat	4740										
227	tagcaggtcc	atgttatgg	tttcatgtt	tgtgtaa	gttatca	gaaggaaggt	4800										
229	caggttagaca	acccaaactg	gcaaaaaaaaaa	aagtttac	tactgtatgg	cccttgcgg	4860										
231	cttgatgttc	catgcacctt	ttctgacatg	ctgtctactg	tatgccaccc	ccactataat	4920										
233	gtatgagata	tgaatataaa	atggagat	ccaaaat	cagatgattt	cccactaaat	4980										
235	gctaaatgt	catagtgggt	tttccaccta	tttgactt	atcatgttct	tacacaaaat	5040										
237	cagaaaacat	ccatttcatg	cacattgtat	cacactgtat	attaacaatc	tattcagatt	5100										
239	tggctgtaaa	cacaccctta	tttccgcat	ccattaat	tatattgt	ccctggacag	5160										
241	gttaagctt	tgcagcacag	taagtaacc	gatgaaat	caatatgtatc	ctcgagcgcc	5220										
243	ctat						5224										
246	<210>	SEQ ID NO:	3														
247	<211>	LENGTH:	173														
248	<212>	TYPE:	PRT														
249	<213>	ORGANISM:	Lolium perenne														
251	<400>	SEQUENCE:	3														
253	Met	Ser	Arg	Ser	Val	Glu	Pro	Leu	Ile	Val	Gly	Arg	Val	Ile	Gly	Glu	
254	1				5				10					15			
257	Val	Leu	Asp	Pro	Phe	Asn	Pro	Cys	Val	Lys	Met	Val	Ala	Thr	Tyr	Asn	
258					20				25					30			
261	Ser	Asn	Lys	Leu	Val	Phe	Asn	Gly	His	Glu	Leu	Tyr	Pro	Ser	Ala	Val	
262					35				40					45			
265	Val	Ser	Lys	Pro	Arg	Val	Glu	Val	Gln	Gly	Gly	Asp	Leu	Arg	Ser	Leu	
266					50				55					60			

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/507,355

DATE: 08/12/2005
TIME: 14:45:30

Input Set : A:\2005-06-06 0147-0262PUS1.ST25.txt
Output Set: N:\CRF4\08122005\J507355.raw

269 Phe Thr Leu Val Met Thr Asp Pro Asp Val Pro Gly Pro Ser Asp Pro
 270 65 70 75 80
 273 Tyr Leu Arg Glu His Leu His Trp Ile Val Ser Asn Ile Pro Gly Thr
 274 85 90 95
 277 Thr Asp Ala Ser Phe Gly Gly Glu Val Met Ser Tyr Glu Ser Pro Lys
 278 100 105 110
 281 Pro Asn Ile Gly Ile His Arg Phe Ile Phe Val Leu Phe Lys Gln Lys
 282 115 120 125
 285 Arg Arg Gln Thr Val Ser Val Pro Ser Phe Arg Asp His Phe Asn Thr
 286 130 135 140
 289 Arg Gln Phe Ala Val Asp Asn Asp Leu Gly Leu Pro Val Ala Ala Val
 290 145 150 155 160
 293 Tyr Phe Asn Cys Gln Arg Glu Thr Ala Ala Arg Arg Arg
 294 165 170
 297 <210> SEQ ID NO: 4
 298 <211> LENGTH: 177
 299 <212> TYPE: PRT
 300 <213> ORGANISM: Arabidopsis sp.
 302 <400> SEQUENCE: 4
 304 Met Glu Asn Met Gly Thr Arg Val Ile Glu Pro Leu Ile Met Gly Arg
 305 1 5 10 15
 308 Val Val Gly Asp Val Leu Asp Phe Phe Thr Pro Thr Thr Lys Met Asn
 309 20 25 30
 312 Val Ser Tyr Asn Lys Lys Gln Val Ser Asn Gly His Glu Leu Phe Pro
 313 35 40 45
 316 Ser Ser Val Ser Ser Lys Pro Arg Val Glu Ile His Gly Gly Asp Leu
 317 50 55 60
 320 Arg Ser Phe Phe Thr Leu Val Met Ile Asp Pro Asp Val Pro Gly Pro
 321 65 70 75 80
 324 Ser Asp Pro Phe Leu Lys Glu His Leu His Trp Ile Val Thr Asn Ile
 325 85 90 95
 328 Pro Gly Thr Thr Asp Ala Thr Phe Gly Lys Glu Val Val Ser Tyr Glu
 329 100 105 110
 332 Leu Pro Arg Pro Ser Ile Gly Ile His Arg Phe Val Phe Val Leu Phe
 333 115 120 125
 336 Arg Gln Lys Gln Arg Arg Val Ile Phe Pro Asn Ile Pro Ser Arg Asp
 337 130 135 140
 340 His Phe Asn Thr Arg Lys Phe Ala Val Glu Tyr Asp Leu Gly Leu Pro
 341 145 150 155 160
 344 Val Ala Ala Val Phe Phe Asn Ala Gln Arg Glu Thr Ala Ala Arg Lys
 345 165 170 175
 348 Arg
 352 <210> SEQ ID NO: 5
 353 <211> LENGTH: 178
 354 <212> TYPE: PRT
 355 <213> ORGANISM: Brassica napus
 357 <400> SEQUENCE: 5
 359 Met Glu Asn Met Gly Thr Arg Val Ile Glu Pro Leu Ile Val Gly Arg
 360 1 5 10 15

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/507,355

DATE: 08/12/2005
TIME: 14:45:30

Input Set : A:\2005-06-06 0147-0262PUS1.ST25.txt
Output Set: N:\CRF4\08122005\J507355.raw

363 Val Val Gly Asp Val Leu Asp Asn Phe Thr Pro Thr Ile Lys Met Asn
 364 20 25 30
 367 Val Ser Tyr Asn Lys Lys Gln Val Ser Asn Gly His Glu Leu Phe Pro
 368 35 40 45
 371 Leu Ala Val Ser Ser Lys Pro Arg Val Glu Ile His Asp Gly Asp Leu
 372 50 55 60
 375 Arg Ser Phe Phe Thr Leu Val Met Thr Asp Pro Asp Val Pro Asn Pro
 376 65 70 75 80
 379 Ser Asp Pro Phe Leu Lys Glu Arg Leu His Trp Leu Val Met Asn Ile
 380 85 90 95
 383 Pro Gly Thr Thr Asp Ala Thr Phe Gly Lys Glu Val Val Ser Tyr Glu
 384 100 105 110
 387 Leu Pro Lys Pro Asn Ile Gly Ile His Arg Tyr Val Phe Val Leu Phe
 388 115 120 125
 391 Arg Gln Lys Gln Arg Arg Val Lys Phe Pro Ser Asn Ile Ile Ser Arg
 392 130 135 140
 395 Asp Gln Phe Asn Thr Arg Glu Phe Ala Ile Glu Asn Asp Leu Gly Leu
 396 145 150 155 160
 399 Pro Val Ala Ala Val Phe Phe Asn Ala Gln Arg Glu Thr Ala Ser Arg
 400 165 170 175
 403 Arg Arg
 407 <210> SEQ ID NO: 6
 408 <211> LENGTH: 178
 409 <212> TYPE: PRT
 410 <213> ORGANISM: Brassica napus
 412 <400> SEQUENCE: 6
 414 Met Glu Asn Met Gly Thr Arg Val Ile Glu Pro Leu Ile Val Gly Arg
 415 1 5 10 15
 418 Val Val Gly Asp Val Leu Asp Asn Phe Ala Pro Thr Ile Lys Met Asn
 419 20 25 30
 422 Val Ser Tyr Asn Lys Lys Gln Val Ser Asn Gly His Glu Leu Phe Pro
 423 35 40 45
 426 Leu Ala Val Ser Ser Lys Pro Arg Val Glu Ile His Asp Gly Asp Leu
 427 50 55 60
 430 Arg Ser Phe Phe Thr Leu Val Met Thr Asp Pro Asp Val Pro Asn Pro
 431 65 70 75 80
 434 Ser Asp Pro Phe Leu Lys Glu Arg Leu His Trp Leu Val Met Asn Ile
 435 85 90 95
 438 Pro Gly Thr Thr Asp Ala Thr Phe Gly Lys Glu Val Val Ser Tyr Glu
 439 100 105 110
 442 Leu Pro Lys Pro Asn Ile Gly Ile His Arg Tyr Val Phe Val Leu Phe
 443 115 120 125
 446 Arg Gln Lys Gln Arg Arg Val Lys Phe Pro Ser Asn Ile Ile Ser Arg
 447 130 135 140
 450 Asp Gln Phe Asn Thr Arg Glu Phe Ala Ile Glu Asn Asp Leu Gly Leu
 451 145 150 155 160
 454 Pro Val Ala Ala Val Phe Phe Asn Ala Gln Arg Glu Thr Ala Ser Arg
 455 165 170 175
 458 Arg Arg

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/507,355

DATE: 08/12/2005

TIME: 14:45:31

Input Set : A:\2005-06-06 0147-0262PUS1.ST25.txt
Output Set: N:\CRF4\08122005\J507355.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date